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ABSTRACT

Ottawa's program of middle French immersion (MFI) instruction, beginning in fourth grade, was evaluated when the first cohort reached sixth grade. Results of the study were compared with those of other groups, particularly the early French immersion (EFI) program and late French immersion (LFI) program students. The evaluation also added data from the third fourth-grade MFI cohort to expand the grade four database. Information was gathered through questionnaires, tracing of student progress, and collection of standardized test scores. The sixth-grade MFI cohort consisted of two classes (about 40 students). They were matched with sixth-grade EFI classes with similar reading scores. The MFI grade four cohort consisted of five classes. Results suggest that, despite comparable French production skills, the EFI and MFI cohorts should be merged in grade seven with caution and with follow-up research. The third MFI grade four cohort was found to be similar to the first. The MFI program appeared to attract, in general, more able students and the children of more educated and participatory parents. Few MFI students had been EFI students previously. The first MFI cohort has been reduced by one-third. Substantial appended materials include tests and student progress data. (MSE)

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MIDDLE IMMERSION STUDY 1988

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March 1989

Research Paper 88-08

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MIDDLE IMMERSION STUDY 1988

INTRODUCTION

Background

In September 1985 the Ottawa Board of Education initiated a program of "middle French immersion" at the grade 4 level in two schools. Students were to be taught entirely in French over the junior level, except for English language arts (about 20 per cent of the day).

During its first year of operation the program was evaluated by the Research Centre (Research Report 86-08). In 1987-88, when the third cohort began the program, another evaluation was undertaken. OBE administrators, board members, and program consultants were interested in finding answers to such questions as: What level of French proficiency have middle immersion (MFI) students attained after three years in the program? Are they ready to be merged with the early immersion stream (EFI) at the grade 7 level? Is the third cohort similar to the first? What type of student or family chooses the middle immersion program? Is it possible to predict "success" in the middle immersion program based on background or previous achievement?

An evaluation was planned for the spring of 1988 to examine the progress of the first middle immersion cohort at the end of grade 6 and to compare it with that of other groups, especially early immersion. The second objective of the 1988 testing program was to repeat the previous evaluation with the third cohort so as to increase the size of the data base at the grade 4 level. Other information was to be gathered through questionnaires, student tracing and the collection of standardized test scores.

Previous Research

In Ottawa, 1986, the first MFI cohort was examined at the grade 4 level. It was found that, in English reading, MFI students' scores were more like those of EFI than regular English students. In French reading, the grade 4 MFI students had a mean score which was at about the 30th percentile relative to the grade 3 EFI norming group. The MFI listening test mean score fell at the 60th percentile relative to the norming group tested at the end of grade 1 EFI.

In Toronto, 1984, when one grade 6 MFI class was compared with two EFI classes, there were sometimes more differences between the EFI classes than between the programs. The EFI students did, however, obtain higher scores in listening comprehension. Combin-

ing EFI and MFI students at the grade 7 level was considered to be feasible at that time.

In Toronto, 1985, grade 6 first and third cohorts generally scored similarly on French competency tests. Although the third cohort's score for pronunciation was somewhat higher, it was slightly lower for French listening comprehension and tense sequence items.

The grade 7 MFI students had been in close to full time immersion classes from grades 4 to 6 followed by half-time immersion in combination with EFI students "blended" in grade 7 and 8 classes. Overall the pattern of differences between the two programs favours the EFI students. Especially noted were the EFI students' higher scores for written and oral tense use, communicative strategies and fluency. The differences in the same scores are greater for the second cohort suggesting that this may be a consistent feature.

In Toronto, 1986, the next year it was decided to separate the groups for the French language arts period at the grade 7 level.

In Toronto, 1988, on most measures, the grade 8 blended MFI students perform similarly to those in EFI. They have the advantage of more hours in French, two years in a class with EFI students, a higher SES and the fact of being a lead cohort.

Subjects

In the 1987-88 school year the first MFI cohort consisted of two classes (about 40 students) at the grade 6 level. To provide a comparison group for the grade 6 MFI students, two EFI classes were chosen which had scores on a grade 6 reading test similar to those of the MFI group. The EFI classes were to take the same tests as the MFI students. One of the tests was also to be given to two LFI classes which appeared to be representative of that program. Figure 1 shows the proportion of the day spent in French by students in the three immersion streams at the primary and junior levels.

The grade 4 MFI group included five classes in three schools. Data collected at the time of testing indicated that, of the 106 students who enroled in the program in September 1987, 93 remained by May 1988. There were 54 girls and 39 boys in this third cohort; the proportion of boys had increased from 25 per cent of the first cohort to 42 per cent in the third.

Instruments

Grade 4 tests. At the grade 4 level, the choice of tests was very straightforward, since the objective was to repeat the previous evaluation. All MFI students were given a French listening test, the OISE French Listening Comprehension Test, Level 1, re-

vised, referred to as OISE 1, and a French reading test, the Test diagnostique de lecture pour les classes d'immersion, troisième année (Tourond reading test).

The 45-item test known as OISE 1 was developed at the Ontario Institute for Studies in Education and was originally intended for use with grade 1 early French immersion students. Some minor changes in format were made so that the test would be more suitable for use at higher grade levels.

The Tourond test is one in a series of group tests of reading in French intended for early immersion students in the primary grades. The grade 3 level used in this study includes sentence comprehension (maximum 33) and story comprehension (maximum 24) subtests.

Grade 6 tests. At grade 6, more difficulties were involved in selecting instruments which would be suitable for all the groups involved. After consultation with members of the Program Department, two tests which had been developed by the Modern Language Centre at the Ontario Institute for Studies in Education were selected.

The first instrument, to be given to all three program groups (MFI, EFI and LFI), was a 17-item multiple-choice listening comprehension test called Test de compréhension auditive, niveau A. After listening to a taped item, students respond to a question by selecting the appropriate phrase or sentence written in their test booklet.

The second instrument chosen, to be used with grade 6 MFI and EFI classes, was the evaluation kit entitled Bienvenue au camp de la gélinotte. This instrument was designed to measure the spoken and written French of Saskatchewan immersion students at the grade 6 level. In spite of the cost and effort involved, it was felt to be desirable to use such a test at this time. Since productive skills are believed to develop more slowly than the receptive areas, it would be useful to measure speaking and writing proficiency in case important differences could be detected between MFI and EFI groups. In addition, this evaluation kit appeared to be an instrument which would appeal to the students and might be an example of an effective evaluation procedure which teachers could adapt.

The underlying framework for this instrument and its related scoring procedures is the "framework of communicative competence" described by Canale and Swain (1983). According to this model, communicative competence consists of four major components:

(1) Grammatical competence includes knowledge of vocabulary items and of rules of pronunciation, spelling, word formation and sentence formation.

(2) Sociolinguistic competence involves the extent to which language can be used appropriately to convey communicative functions (inviting, persuading, commanding, etc.), depending on such factors as the topic, the role of the participants and the setting.

(3) Discourse competence involves mastery of how to combine sentences and ideas or points of information coherently.

(4) Strategic competence is that knowledge of verbal and non-verbal strategies which may be called into play to compensate for insufficient knowledge of grammatical, sociolinguistic or discourse rules.

The kit involves four written and two oral exercises designed to evaluate these areas. Each student writes answers to questions about a picture in the test booklet, writes a composition based on given information and another descriptive composition to cover five specified points, completes a 42-item cloze-type test, retells a story (orally), and takes part with three others in making up a campfire story. The test manual clearly specifies the aspects of each exercise to be scored. Measures of grammatical competence include a count of preposition errors, a rating for pronunciation, and scores for word formation and grammatical spelling, variety of vocabulary and sophistication of vocabulary. Discourse competence measures include a count of verb tense sequence errors in both written and oral work and a score based on the number of tasks fulfilled in the composition. A rating on the appropriateness of style provides a measure of sociolinguistic competence and a rating is also given for the use of communicative strategies. Additional measures derived from the oral exercises include a fluency rating and a count of the various communicative strategies used. The cloze test score gives a measure of overall language proficiency, including grammatical, sociolinguistic and discourse competence. The components of the test are described in greater detail in Appendix A.

Questionnaires. Information about the background of the grade 4 MFI group was obtained, first, through a brief student questionnaire. Secondly, a questionnaire was developed for parents of this group, to learn more about the home background and the reasons for choosing the middle immersion program. Copies of the questionnaires used are found in Appendix B.

Other scores. The two late immersion classes were given a second French listening test which had been used with many of the early cohorts of late immersion. The IEA Listening Comprehension Test, Population II, is a 40-item multiple-choice test developed by the International Association of Educational Achievement (IEA). Population II refers to the fact that the test was developed for students who are approximately 14 years old and who have had two or three years of basic French courses. A tape recording presents

French statements, questions, short conversations, broadcasts and dramatic scenes to which the student responds by selecting the appropriate picture or written response in a test booklet.

As part of the City-Wide Testing program, most students in the Ottawa Board take the following tests:

Grade 3: Gates-MacGinitie English reading test, Level C:
- Vocabulary (maximum 45)
- Comprehension (maximum 44)

OBE Mathematics Test (maximum 59)

Grade 4: Canadian Cognitive Abilities Test:
- Verbal (maximum 100)
- Nonverbal (maximum 80)

Grade 5: OBE Mathematics Test, level 4-5 (maximum 50)

Grade 6: Gates-MacGinitie English reading test, Level D:
- Vocabulary (maximum 45)
- Comprehension (maximum 43)

Scores on these tests were collected for all students in the study wherever available. In addition, French reading and listening scores from the earlier evaluation were available for the grade 6 MFI students.

Procedures

All testing took place between the third week of April and the end of May, using two experienced francophone testers. Since the kit Bienvenue au camp de la gélinotte had not been used in Research Centre evaluations previously, the two testers worked together in the first school so as to make sure their procedures were equivalent.

The administration used for the 'gélinotte' kit differed in one respect from the procedure outlined in the manual. Although the manual directions call for the exercises to be done by only eight students from a class (two groups of four), it was decided to give the test to the four entire classes to increase the size of the test group. It was also felt that more could be learned about the functioning of this test by using it with a larger group.

Scoring of the written exercises from Bienvenue au camp de la gélinotte was carried out by one of the testers. Oral exercises were scored by a fluently bilingual scorer with training in linguistics. Results on all tests were sent to the schools involved when scoring was complete.

Student background questionnaires were completed by grade 4 MFI pupils at the time of testing. Parent questionnaires were sent home with the students, with a follow-up mailing to those who had not replied a month later.

Organization of This Report

Information about MFI students' background, obtained through tracing procedures and questionnaires, is presented in the first section below. The following sections outline the results obtained from the administration of tests and questionnaires as described above. Test results are presented, first for grade 6, then for grade 4, including comparisons with test norms and among groups wherever possible. Results are discussed in the text and presented in tabular form in Appendix C. In general, differences between means of two groups are mentioned if they exceed half the standard deviation of the combined group.

Parent questionnaire responses are given following test results and related to scores where relevant. The report concludes with information about students who have left the MFI program and an examination of enrolment patterns.

TRACING: STUDENTS ENTERING MIDDLE IMMERSION

First Cohort

In Research Report 86-08 it was reported that the majority of students entering the first MFI cohort had been in a regular English program at the primary level. Only four students had had prior experience in an immersion program, while three had entered the program directly from outside the OBE.

Third Cohort

The 106 students entering grade 4 middle immersion in the fall of 1987 came from 25 different OBE schools, while nine students came from outside the OBE. About a quarter of all incoming students had been in one of the primary alternative schools in grade 3. Another 20 per cent had been enroled in grade 3 in a school offering MFI.

Table 1 shows information about students' schooling prior to grade 4, based on the background questionnaires completed by the 93 students remaining in MFI by the end of the year. The 13 students who had left the program had all been in the OBE English program in grade 3 but detailed information about their background is not available.

About 13 per cent of the MFI group had had some experience with an EFI program, ranging from part of a year in kindergarten to almost all schooling prior to entering middle immersion. Of the group with some time in EFI, the experience had been with the OBE program for half, and for half it had been elsewhere (Ottawa Separate Board program, immersion in another province, etc.).

Information from parent questionnaires generally corroborated that given by the students themselves.

TEST RESULTS: GRADE 6

Results on Standardized Tests

Comparison of board-wide results. Table 2 shows the 1987 fall mean scores for students in the regular English program and in early, middle and late French immersion on the D level of the Gates-MacGinitie English reading test taken at the beginning of grade 6. It may be seen that students in all immersion variations scored higher than those in English on both the vocabulary and comprehension subtests. Differences shown here are consistent with those reported in Research Report 86-08 for these groups when they were in grade 3.

Comparison of matched groups. In the 1985-86 study, students in the middle immersion program had been matched by sex and reading scores with ones in English and in early immersion. The final matched samples included 40 girls and 14 boys from each of the three program groups. By the 1987-88 school year, 25 of these pairs remained in OBE schools and had grade 6 reading scores. These pairs include 10 students who had just started LFI at the beginning of grade 6 after being in the English group. However, students who had changed from middle or late immersion to English were not included. Mean scores from 1985 and 1987 for these matched sets of 25 children are shown in Table 3. It appears that the English and MFI groups have maintained pretty much the same relative position in the two and a half years between testings, but that the EFI group was performing slightly better by grade 6.

Comparison of groups tested. Table 4 shows scores on the reading, mathematics and ability tests for the MFI, EFI and LFI groups tested in spring 1988. Mean scores for the three groups were generally similar. The difference among the groups was greatest in the case of the grade 5 mathematics test, where the MFI group scored almost 4 points lower than the LFI group.

French Listening Test Results

On the Test de comprehension auditive A, taken by all three program groups, the MFI and LFI students had similar means (Table 5). Both, however, were considerably lower than the EFI mean. This test was very difficult for the middle and late immersion students. The MFI mean was between those of two grade 6 MFI groups in Toronto tested in 1983 and 1985, while the EFI mean was close to that of a grade 7 EFI group in Toronto and a point higher than that of a group of early immersion students in the Ottawa and Carleton Boards in 1979.

On the second listening test, the IEA II, the late immersion group had a mean of 29.3 (Table 6). The correlation between the two listening tests was 0.31 for this LFI group.

As also shown in Table 6, the present LFI group mean is about three points higher than that of a combined group of OBE grade 6 students who took this test between 1974 and 1976 after one year of LFI. The reason for this difference is not clear. However, it is known that the core French program in kindergarten to grade 5 (that is, prior to entering LFI) included twice as many hours of instruction for the 1988 group as for the earlier students. Moreover, no information is available regarding the comparability of the two groups on academic ability, nor is it known whether the 1988 sample is representative of all LFI classes in the board.

Results on "Bienvenue au camp de la gélinotte"

Grammatical competence. On the written subtests measuring grammatical competence, the MFI group made more grammatical spelling errors than the EFI group, but the preposition error counts for the two groups were similar (Table 7). The MFI students used a greater variety of verbs but the two groups had similar scores on the sophistication of vocabulary scale (the number of verbs not on a given list). Mean pronunciation ratings for the two groups were similar, nor were the distributions of these ratings very different (Table 8).

Discourse competence. Both groups had similar means on the 'basic task fulfilment' scale, having on average included about four of the five requested points in their compositions (Table 7). However, there were differences between EFI and MFI in the proportion of errors of verb tense sequence, both in the written and oral tasks. The EFI group made tense errors in about 10 per cent of the verbs in their compositions, while the proportion for the MFI group was more than twice as high; within both groups, there was a wide variation in the per cent of errors made. In the first ten verbs used in the oral story-telling exercise, the average number of errors was 1.4 for the EFI group and 3.0 for the MFI students.

Sociolinguistic competence. Close to 60 per cent of each group obtained a rating of 1 on the 'appropriateness of style' scale, indicating that they were able in the composition to maintain a consistently impersonal style by avoiding the use of je, tu, vous and related forms (Table 8). The two groups also had similar means on this scale (Table 7).

Cloze test. On the cloze exercise, the EFI group scored higher than the MFI group. Out of the 42 blanks to be filled, the EFI group filled almost 18 correctly, while the average for the MFI students was just under 14 (Table 7).

Strategic competence. All students in both EFI and MFI groups obtained a score of 1 on the 'communicative strategy' scale, meaning that each had encountered some difficulty in communicating but, in the majority of cases, had overcome the problem by using a communicative strategy (Table 8). Only two or three students in each group abandoned the attempt to put across a message instead of using a strategy to get around the problem.

Of greater interest are the frequencies with which MFI and EFI students used the various strategies (Table 9). About 10 per cent of each group were found to have taken an English word and made it comprehensible by giving it a French pronunciation and a similar proportion created a new but understandable word for a term they did not know by applying their knowledge of a related French word. The most frequently used strategy (used by about 70 per cent of each group) was to give a literal translation of individual words in an expression for which they did not know the French equivalent.

A fourth strategy was used at least once by nearly 60 per cent of the MFI group but by just under 40 per cent of EFI students: providing a less precise but still comprehensible equivalent for a French word or expression. About 77 per cent of MFI and 61 per cent of EFI students used the fifth strategy of finding a paraphrase or another way of putting across what they wanted to say.

Fluency. The mean fluency ratings for the two groups were almost identical (1.03 and 1.09), and the two distributions of scores were also similar (Tables 7 and 8). A slightly higher proportion of EFI students attained a rating of 2 (30 as compared to 23 per cent), but 21 per cent of each group were rated 0. No student in either group was given a rating of 3 which indicates a fluency similar to that of a native speaker.

Comparison with Saskatchewan norms. Norms for this test were developed based on 12 classes in Saskatchewan, including some francophone students as well as those in an early immersion program. Compared to this norming group, the MFI students scored in the "above average" range on the variety and sophistication of vocabulary scales (Table 10). However, scores for the number of preposition errors and written and oral tense sequence errors were classified as "below average", as were ratings for pronunciation and communicative strategies and the score on the cloze test. The remaining subtest scores fell in the "average" range.

The EFI scores for sophistication of vocabulary and for the three subtests in the discourse competence area were classified as "above average". Only the ratings for pronunciation and communicative strategies fell in the "below average" range. When results are viewed in this way, it appears to be the discourse competence area and the cloze test where the EFI group has an advantage over the MFI group.

Comparison with other groups. Overall, the MFI group tested in this study appeared similar to Toronto grade 6 groups tested in 1983 and 1985 (Table 11). This is apparent also when means are classified as average, above average or below average according to the Saskatchewan norms (Table 12).

The present MFI group had better scores than either Toronto group on the variety of vocabulary and appropriateness of style scales (Table 11). On the pronunciation rating and oral tense sequence scale, where the Toronto groups differed significantly, the Ottawa mean was more like that of the better-performing Toronto group. On the third scale where the Toronto groups differed (written tense sequence errors) the Ottawa mean was between the other two. The Ottawa mean for basic task fulfilment was a little lower.

In comparing the present early immersion group with one tested at grade 6 in Toronto in 1983, it was found that the Ottawa group made fewer oral tense sequence errors and used more 'sophisticated' verbs, while the Toronto students scored higher on the rating for communicative strategies. Results for a Carleton Board grade 6 EFI group are also seen in Table 11 to be generally similar to the Ottawa ones.

In Toronto it was also found that there were significant differences between grade 7 EFI and MFI students on the written and oral tense sequence error scales and on the communicative strategies rating. The first two of these subtests appeared to be the areas where there was the greatest difference between the Ottawa grade 6 EFI and MFI groups.

Correlations among Scores

In general, scores on the Auditive A French listening test and on the cloze test were more closely related to reading comprehension scores than to results on other reading and ability tests (Tables 13 to 15). Except for the cloze test, the correlations among the various scales of the 'gélinotte' kit were very small, as were their correlations with standardized test scores. This may be due in part to the lack of variability on some of the scales (e.g. the ratings).

For the early immersion group, both the Auditive A and the cloze test were significantly related to several of the reading and ability scores. However, the correlation between the Auditive A and cloze test was very small.

The MFI group showed more significant correlations between the cloze test and the reading and ability scores than did the EFI group. For this group, the correlation between the Auditive A and the cloze test was significant (0.55). The Auditive had a signifi-

cant correlation with two of the spring grade 4 tests, including the listening test, while the cloze test was significantly correlated with three of the grade 4 French reading test scores.

As already noted, the two listening tests showed a fairly low correlation (0.31) for the late immersion group. The IEA II was more strongly related to the standardized test scores than was the Auditive A.

Sex Differences

Within the MFI group, the most striking difference between boys and girls was in the relative size of the two subgroups: the girls outnumbered the boys by a ratio of about 5 to 2 (Table 16). Although this small group of boys had somewhat higher scores on several of the reading, ability and French proficiency tests taken in grades 3 and 4, girls tended to perform slightly better on the 'gélinotte' scales, the difference being especially apparent for the number of preposition errors.

The LFI group included about 60 per cent girls, who appeared to have slightly higher scores on most of the reading and ability tests (Table 17). The girls scored higher on the IEA II listening test but not on the Auditive A.

The EFI group was almost evenly divided between boys and girls (Table 18). Most mean test scores were also similar for the two groups, except that boys used more 'sophisticated' verbs and girls scored higher on the cloze test.

TEST RESULTS: GRADE 4

Results on Standardized Tests

The grade 3 English reading test scores were collected for the 1985 and 1987 MFI cohorts and for the EFI and regular English groups of the same years.

Comparisons with board-wide results. As shown in Tables 19 and 20, scores for the 1985 MFI cohort for English reading and mathematics are more like EFI scores in that they are somewhat higher than those for the regular English group. However, the third MFI cohort scored notably higher than its comparable 1987 English group on both subtests of English reading test and on the OBE mathematics test. According to Gates and MacGinitie, 1965, the scores in this English reading test are highly related to intelligence test scores.

Comparison of present with original middle immersion group. The scores for the English reading test for 56 students in the first MFI cohort and 81 students in the third were also compared.

As shown in Tables 19 and 20, the scores for the two cohorts on both subtests of the English reading test are not notably different. As the present version of the grade 3 math test was not available for use in 1985 no comparisons are possible.

French Proficiency.

Reading in French. The French reading test was administered to both cohorts of grade 4 middle immersion. As shown in Table 21, there is little difference between the two cohorts on mean scores achieved in either sentence comprehension or story comprehension. The first and third cohort scored 63 and 64 per cent of the total possible score of 57.

The MFI mean scores were also compared with the norms for grade 3 EFI students, taken from the test manual. Only the lower 30 per cent of the grade 3 EFI norming group scored at the same level as the grade 4 MFI group according to the accompanying test manual.

French listening comprehension. The French listening comprehension test was given to both cohorts of grade 4 middle immersion students. As shown in Table 22, the mean scores are similar for both cohorts. For additional comparison, means from the accompanying test manual for students in early immersion, core, and bilingual programs are included in the table. As no standard deviations are available, it can only be said that the grade 4 middle immersion cohorts scored, on average, 10 points lower than the grade 3 early immersion students and 17 points higher than the grade 4 core French students. The difference in scores is not surprising when total numbers of hours in French are considered.

Sex Differences

Boys and girls in the 1987 grade 4 cohort scored similarly on all of the standardized and French proficiency tests as shown in Table 23.

Correlations among the Scores

As shown in Table 24, scores on both the vocabulary and comprehension subtests of the English reading test are significantly related to the sentence comprehension section, Part 1, of the French reading test and to the math test. The French listening comprehension test scores are closely related to both parts of the French reading test. No other significant test correlations were found.

QUESTIONNAIRE RESPONSES: GRADE 4

The Questionnaire

As already described, a questionnaire was designed for parents of students enrolled in the 1987-88 cohort of the grade 4 middle immersion program. The parents responded to questions regarding their choice of program, their plans for the future and their child's current progress and attitude towards school. They also described any additional exposure to French through the family and gave some information regarding family background.

Of the 93 families, 79 returned completed questionnaires. A response rate of 85 per cent suggests that families of these students are strongly interested in their children's schooling.

Background information

Student characteristics. As shown in Table 25, the ratio of girls to boys is now about 1.4 to 1. This is a reduction in the proportion of girls which was 3 to 1 for the first cohort in 1985.

Of the 78 parents who answered the question regarding place in the family, about half said their child was the oldest, and one third indicated the youngest.

Family characteristics. Responses to questions regarding family background are shown in Table 26. For additional comparison, 1985 Ottawa census data are included. Most middle immersion parents indicated they had at least two children. Families of this size are overrepresented in the middle immersion group compared with the census data.

Involvement in the school. Parents were asked to indicate their involvement in school activities during the current year. As shown in Table 26, almost all of the respondents indicated involvement in parent-teacher interviews. Twenty-seven per cent said they had volunteered in the classroom, another 30 per cent indicating additional forms of volunteer work such as: phoning, fundraising, helping on trips, library work, attending meetings, attending school functions, helping with homework and communicating both verbally and in writing with the school staff regarding the child. This seems to represent a fairly high involvement on the part of the middle immersion parents in school related activities and is consistent with the high response rate to the questionnaire.

Parents' education and type of employment. Parents were asked to indicate the highest level of education and type of employment for two adults in the family. As shown in Table 26, it appears to be the well educated professional parents who enrol their child in middle immersion. In comparison with the Ottawa census data the

well educated parent is overrepresented in the middle immersion group.

Exposure to French

Exposure to French at school prior to middle immersion. The respondents were asked if their child had ever been in an early French immersion program. Of the 77 who responded, 84 per cent said that their child had no experience in early immersion. Of the few who had been in early immersion, most said that this had occurred only at the kindergarten level. There were only two children who had been in French immersion from kindergarten to grade 3, one in a bilingual program and one in early immersion.

The influence of experience in early immersion on test results was not examined as the numbers were too small. In addition, most children had been enroled in immersion only at the kindergarten level followed by grades 1 to 3 in English.

The parents also indicated their reasons for withdrawing the child from the primary French immersion classes. Four of the families indicated their child had left the EFI program because of a family move. Individual respondents mentioned other reasons for leaving: they described their children as either apprehensive because of lowered self-esteem, frustrated at not being able to say what she wanted to, or simply as disliking the program. Some described problems with some aspects of the presentation of the program or enrolment in a different school: there was a poor class atmosphere, the material was too easy, the bus ride was too long or they wanted to keep the family together at one school.

Exposure to French outside the school. Respondents were asked to check a list to indicate opportunities for their child to learn French in their homes and communities. Responses to this question are shown in Table 27.

Responses indicate that in most middle immersion homes English is spoken always, French is spoken occasionally and a third language is never spoken. Results on the standardized and French proficiency tests were examined by the amount of French used in the home as shown in Table 28. Students who live in homes where French is used occasionally appear to have higher scores on the English reading vocabulary subtest than in those where French is never spoken. The numbers of homes where French is always or usually spoken are too few to make comparisons of test results. One does wonder why the children who are listed as always speaking French at home are enrolled in middle immersion.

Beyond the use of French in the home, parents mentioned a number of exposures to French, the most often mentioned being French speaking relatives, neighbours or friends and summer activities.

In another question, parents described their own ability in French. As shown in Table 27, two thirds of the respondents said they spoke French poorly, the rest saying they spoke either adequately or well. The proportions were similar for the second adult with fewer saying they spoke very well. A Spearman correlation was computed between the parents' perceptions of their ability in using French and the students' test scores. No significant correlations were found.

Family Commitment to French

Retention in the middle French immersion program. Seventy-five parents responded to the question regarding how long they expected their child to remain in French immersion. About half of the respondents said their child would remain as long as s/he was happy. Sixteen per cent said they would withdraw after the grade 8 level, and 13 per cent said they would remain until they graduated from high school. Twelve per cent of the parents were undecided as to how long their child would remain in the program. Two families indicated the child would leave by the end of grade 6.

Main Reason for Choosing Middle Immersion

The parents wrote 113 reasons for choosing middle immersion for their child. The various reasons have been grouped into categories and are presented below in order of frequency.

Reasons for not choosing early immersion. The largest number of comments, 37, related to parents' reasons for not choosing early French immersion. Twenty of these parents said they wanted their child to have a base in the English language arts first:

> We wanted our son to have a good grounding in English before attempting another language.
>
> We like him to learn both official languages. (Grade)Four is the right age for him to change because he has enough English to use as a foundation.
>
> We wanted her to learn the fundamentals such as reading, math etc. in English first.

Five of these respondents said they preferred a program at an alternative school to early immersion at the primary level. Then at the grade 4 level, middle immersion was their choice.

> Early immersion was too early and late immersion was too late.

Another five felt that their children were too young to introduce to the school system, to busing and to a second language simultaneously. One or two parents expressed each of the following sentiments: learning disabilities or other problems could be identified or corrected before starting immersion, parents wanted their children to feel confident and be able to communicate with others during their primary years. Preserving his/her English culture at the beginning of the child's schooling was also mentioned. It was felt that the child could catch up to those in early immersion later.

Desire for learning French. The next largest group of comments, 25, related to the parents' desire for their child to learn the second language. Sixteen in this group expressed their commitment to their child's learning French as a second national language and to becoming fluently bilingual. Six parents indicated the second language would increase their child's options for employment. Single comments indicated that learning French would enable communication with French speaking people, would improve quality of life and that it was the next best thing to a French school.

Grade 4 an appropriate time. Sixteen of the respondents said they felt grade 4 was the optimal learning age to start this program. They felt they were ready for the challenge socially, developmentally and academically. About half said some version of the following:

> By grade 4 we were satisfied with the development of her English reading and writing skills and felt that she was capable of succeeding in the middle immersion program. It seems an optimal time to begin.

Individuals added that it seemed a natural time to begin. The child was doing well in school and it was still early enough to begin French.

Child related reasons. Ten other parents gave specific child related reasons for choosing middle immersion. Half said it was the child's choice motivated by a flair for the language or a liking for the language. One parent said:

> At kindergarten we the parents decided. This time she decided.

Another four parents indicated that their children needed a challenge at this stage. One parent described a need for a different direction after acceleration had resulted in social problems. The child entered MFI rather than repeat the grade in English.

School location. Nine parents said school location was a factor which influenced their choice of middle immersion. Two parents indicated that the MFI choice allowed their children to attend the same school; because of a recent move to the city, they

felt the children needed to be together. Another two indicated the program was offered at the local school so it was convenient and avoided busing. Others said: their child wanted to stay with friends and former classmates or that they had to change schools anyway. One parent wanted to avoid extra school changes and another said they chose the school not the program.

Reasons for not choosing late immersion. Eight parents cited their reasons for not choosing late immersion for their child. Two of the parents said:

> Friendships are very important at this age (11-12) and only those who are highly motivated to learn willingly accept the challenge.
>
> Late immersion coincides with peer group commitments plus onset of puberty and adolescence - more than enough to deal with.

Others indicated that although they felt that it was easier to acquire a second language while young they did not want early immersion. They felt that beginning at grade 6 "did not permit linguistic flexibility". Beginning in grade 4 was better than at grade 6.

Other reasons. Six parents said that middle immersion was the only option for learning in French available to their children. Either they were not in the country or school system for early immersion or were not ready to begin at that time.

Two parents indicated that they chose middle immersion because they felt that the better students enrolled in immersion as the emphasis of educators was on French immersion.

Factors Checklist in Choosing Middle Immersion

Parents also checked a number of statements listed in the questionnaire to indicate factors which influenced their choice of the middle immersion program. The number of respondents vary for each factor from 72 to 77. As shown on Table 29, three quarters of the parents indicated the following:

> We want our child to have a good foundation in English before starting immersion.

About half in each case said:

> A middle immersion beginning leads to better knowledge of French than late immersion.
>
> Adjusting to French immersion is easier at the grade 4 level than in grade 6.

Thirty to forty per cent of the parents said:

> There is an opportunity to check progress in the English program before starting immersion.
>
> Child needed a challenge.
>
> The MFI school was convenient.

About a quarter of the group in each case said:

> EFI was not available for my child.
>
> The child wanted more French than was offered in the core program.
>
> We preferred an alternate program to early immersion.
>
> The risk of losing important curriculum material is greater (starting immersion) in grade 6 than in grade 4.

The Child in the MFI Program

The child's attitude towards school. Parents were asked to describe their child's present attitude towards school by checking possible responses from enthusiastic to very negative. Of the 78 respondents, 59 per cent indicated their child was enthusiastic, 31 per cent indicated somewhat positive and 10 per cent checked somewhat negative. No respondent indicated that their child felt very negative about school.

Scores on the standardized tests were sorted according to the child's attitude towards school. As shown on Table 30, the mean scores related to each type of attitude are not notably different. A Spearman correlation of the parents' impression of their child's attitude and the parent's ability in French was computed. A moderate correlation of 0.61 was found.

Academic progress. To describe their child's overall academic progress, parents checked their selections from a list of categories on the questionnaire from excellent to having difficulty. As shown in Table 31, most parents are relatively satisfied with their child's progress. They seem to think they are doing well.

A Spearman correlation was computed between the parents' impressions of their own ability in French and their child's progress. A moderate correlation of 0.56 was found. In addition, a high correlation of 0.76 was found between the parents' perception of their child's attitude and progress.

Problems Encountered in the Middle Immersion Program

Despite 86 per cent of the parents indicating that their child's progress had been at least satisfactory, 38 per cent said that there had been a problem encountered during their child's first year in middle immersion.

The mean scores for each standardized and French proficiency test were examined by whether or not the child had experienced a problem during the grade 4 middle immersion year. As shown in Table 32, the parents' identification of problems does not appear to be related to the child's scores.

The problems were grouped in categories and are presented below in order of frequency.

Child is shy and less verbal. Eight of the 30 parents found that their child encountered difficulties because their child was shy and less verbal.

> I wish I could have had someone tell me that it is usually the more outgoing, at ease, devil may care children who succeed quicker in French. Because it is oral, if your child will not participate, it is much more difficult.
>
> Problem speaking out, very quiet, has since overcome it.
>
> Shyness prevents active participation in conversation-exists in English conversation also.

Perhaps related to shyness are the following problems mentioned by individual parents: the difficulty of entering an established peer group, the child who will not ask for help when it is needed, and the child who has lost enthusiasm for school. Four parents simply described their child as being apprehensive.

Academic problems. Seven parents mentioned academic problems, four of these being with mathematics. Single comments were also made about problems encountered with oral French pronunciation and French comprehension. Developing study skills both in school and for doing homework was mentioned by a parent as well.

No experience in primary level French. Two parents described different outcomes to their child's entering middle immersion with no experience in primary level French. One parent indicated that

> He was behind other students who had taken core French. As a result I volunteered in the

> classroom one morning a week. We worked at home. He is now doing reasonably well and will pass to grade five next year. I was distressed because it did not make allowances for children who are new to French.

The second parent said that her child was very anxious at first but the problem soon disappeared:

> came from Vancouver with no French, loves it now.

Lowered self esteem. Of five parents who described this problem, one parent indicated that the child tended to compare herself with students who consistently achieve high standards. Another parent felt that girls respond better to the program.

Other problems. Three parents said the program was too easy for their child. Another three said their child had behavioural problems.

Three parents indicated problems for their children with busing one of them more related to leaving the neighbourhood:

> This is the first time my child has been bussed out of the neighbourhood. We will never choose that option again. We have learned that we did not put enough emphasis on this aspect of neighbourhood schools, friends and family and being part of the community.

> Bus scheduling difficulties were encountered by two children which took calls to the board of education and trustees to get sorted out.

Two parents indicated a preference for middle immersion in the neighbourhood school:

> The location of the MFI school is not convenient at all.

Parents' questions. One parent expressed the following concerns for the child who has difficulties:

> What happens to the child who does not succeed in middle immersion? Does s/he lose the year? Are there feasible alternatives? If the child is not doing well enough (does someone recommend a program change)?

Another parent asked why children from the two programs in the same school do not mix even on the playground:

> Could they not have an English class together? It is as if they must decide to be French and lose previous friends or stay in English with the handful that remains and let the others go to French and lose their friendship. My child is shy and sensitive. Friends at school are important.

TRACING: STUDENTS LEAVING MIDDLE IMMERSION

First Cohort

Of the 68 students who were in the first MFI cohort in 1985-86, 39 remained in the program by the end of grade 6. About half of the group who had left were no longer in the OBE, and of those who had left MFI but not the board, about half were in the EFI or LFI streams. The pathways of the students in this transfer group are shown in Figure 2.

Table 33 shows mean scores for two transfer groups and for the group remaining in MFI to the end of grade 6. It may be seen that, on the reading, mathematics, and ability tests, mean scores for the MFI group tended to be lower than those for the group of students who had left the OBE system and for the group in other OBE programs in grade 6. Scores on the grade 4 French proficiency tests, on the other hand, tended to be a little lower for the transfer groups.

It must be remembered in examining Table 33 that the group of students who had left MFI and were in other OBE programs in 1987-88 is a diverse one, including students in the other immersion streams as well as in the regular English program. The group is too small to break down according to grade 6 program, but in subsequent years it may be possible to aggregate several years' data to obtain an indication of the type of student who is likely to leave MFI for English or another immersion program.

Third Cohort

Of the 13 students who had left the grade 4 MFI program between October and May, seven were boys and six were girls. One had moved to another board, two were in OBE early immersion classes, and the remaining ten were in the OBE English program, including two in the junior alternative school. Figure 3 shows pathways for this cohort over their first year in the program. It appears that the proportion of children leaving MFI for other OBE programs during their grade 4 year is slightly higher (12 as compared to 9 per cent) for the third cohort than for the first.

Standardized test scores for this group of 13 transfer students were examined and means are shown in Table 20. On the English reading vocabulary subtest the transferring group had a

lower mean score than the continuing MFI group, although means were generally higher than those of students in the English program. This group is too small to use in making predictions, but scores of transferring students bear watching in the future.

ENROLMENT PATTERNS IN IMMERSION PROGRAMS

Has the establishment of the middle immersion program affected enrolment in the OBE early or late immersion programs? Have there been more transfers from the EFI program since grade 4 has been available as a new entry point? Have substantial numbers of parents of young children decided to wait until grade 4 to start their child in immersion since this option has become available? Will the late immersion program disappear as all parents who desire immersion for their child have been accommodated by the EFI and MFI programs?

In order to look for an answer to some of these questions, enrolment in the various immersion programs and in the board as a whole were examined for the period from 1971 to 1987. During this period, OBE enrolment has declined considerably - more precisely, kindergarten enrolment appeared to hit a low around 1980 and has stabilized or even increased somewhat since that time. So as to consider enrolment in immersion against this background of changing patterns, the proportion of the student body in immersion at a given grade level must be considered.

Figure 2 shows, first, the per cent of OBE senior kindergarten pupils who were enrolled in EFI from 1971 to 1987. (Although some children attended junior kindergarten in immersion, the program is generally available for five-year-olds and is considered to start then.) It may be seen that the proportion has increased from just over 16 per cent in the first year considered to about 43 per cent in the 1987-88 academic year. The graph rises most steeply in the first years, levels off somewhat, then climbs at a slower pace.

Next, enrolment in grade 4 MFI is shown as a proportion of enrolment at this level who were not in EFI. It may be seen that the size of the middle immersion group has increased considerably in the third year, but it is too soon to look for trends yet.

Finally, enrolment in the first year of LFI (begun in 1973) is shown as a per cent of the grade 6 student population not in EFI or MFI. Again, a striking rise is seen over the first three years of the program, followed by a levelling off period.

Certain points of this graph are of especial interest. By 1973, parents of kindergarten children knew that the LFI program had been established and would be available for their children later on. Yet, just after this point, enrolment in EFI exhibited its greatest increase. Similarly, parents in 1985 could look for-

ward to an MFI program for their children, yet there was only a very slight decline in the proportion of kindergarten pupils enrolling in EFI in that year, with increases in the subsequent years.

By 1977, grade 6 students who might have entered LFI would generally have had the opportunity to start immersion in kindergarten (1971). Thus it is not surprising that the proportion choosing LFI declines from almost 11 per cent in 1976 to just over 7 per cent in 1978. However, it is interesting to note that, after that point, the proportion entering LFI levels off then begins to increase again. For the early and late streams, the period from 1975 to 1980 shows less growth than the preceding or the following five-year periods. Only the final cohort (1987) of LFI students had the option of entering MFI in grade 4. It is thus too soon to look for a trend, but it can be seen that the proportion choosing LFI in 1987 did not represent a decrease from the previous year.

This examination of enrolment patterns does not begin to take into account all the factors affecting program choices, such as general public opinion regarding French or the actual availability of the various programs controlled by the location of the schools where they are offered. Moreover, it is too early in the history of the MFI program to assess trends in its enrolment or its long-term impact. However, it does appear that both EFI and LFI have continued to attract increasing proportions of students in the short period since the introduction of MFI.

To address the question of whether the availability of MFI has increased parents' willingness to withdraw their child from EFI during the primary grades, it will be necessary to examine attrition rates for cohorts before and after the establishment of the MFI program. However, the cohort beginning EFI in the fall of 1985 was the first group which knew about the existence of MFI and this group had only reached grade 2 by 1987-88. Thus it seems too early to provide firm evidence about this question based on enrolment figures.

SUMMARY AND DISCUSSION

This report presents information about the first and third cohorts of students in the Ottawa Board's middle French immersion program, obtained through testing and questionnaires in the spring of 1988.

French production skills of the first MFI cohort (as measured by the evaluation kit "Bienvenue au camp de la gélinotte") were found to be similar to those of EFI students in such areas as vocabulary, pronunciation, fluency and use of communicative strategies. However, MFI students scored lower on a cloze test and made more tense sequence errors in both oral and written work. Listening comprehension scores of MFI students were more like those of LFI than EFI groups. This information does not seem to provide a definitive answer to the question about whether it is feasible to combine MFI and EFI streams at the grade 7 level, but it appears that caution is advisable. More information should be collected about these groups at the grade 8 level, and about more cohorts at grade 6. The search should continue for instruments suitable for evaluating several immersion streams.

The third MFI cohort at the grade 4 level had scores on French reading and listening tests which were generally similar to those of the first cohort measured two years earlier. As yet there is no evidence that the first cohort is different from those following, but it would be useful to examine another cohort in order to increase the size of the data set at the grade 4 level.

Scores on standardized mathematics and English reading tests for both MFI groups tended to be like those of students in the EFI and LFI streams and somewhat higher than those for the English-program group. The third MFI cohort tended to score a little higher than the first on these tests, but the difference between cohorts was not large. Like the other immersion streams, the MFI program seems to attract the more able students.

Information obtained from both student and parent questionnaires indicated that fewer than 15 per cent of MFI pupils had at one time been in the EFI stream. The first MFI cohort included three times as many boys as girls, but the third cohort was more evenly divided.

Families of MFI students tended to include a higher than average proportion of adults with post-secondary education and professional or managerial careers. Parents also appeared to be highly involved with their children's schooling.

The most frequently cited reason for choosing the middle immersion program was a desire for the child to receive primary education in the native language and so have a good foundation in English language arts before tackling a second language. To many

parents, grade 4 seemed to be the optimal point for starting an immersion program.

Most parents saw their children as having a positive attitude towards school and making good progress in the MFI program. A few parents mentioned specific problems but the existence of problems did not seem to be related to test scores.

Some teachers appear to feel that middle immersion creates a great deal of stress for children during the first few months in the new program. It would be useful to obtain data about actual anxiety levels for MFI students and comparable groups starting other immersion options.

The size of the first MFI cohort has been reduced by about a third from the beginning of grade 4 to the end of grade 6. Of the group leaving MFI, about half have left the OBE system; of the group remaining in the board, about half were found in the EFI or LFI streams. Transfer rate for the third cohort during grade 4 seemed to be a little higher than for the first. It will be interesting to continue to monitor students leaving the program to determine the destinations and reasons for leaving.

Enrolment in all types of immersion continues to rise in spite of the addition of new entry points. It is too early to determine the long-term effects on enrolment of providing middle immersion, but to date it appears to meet the needs of a different clientele from the other immersion options.

This study has increased the information available about the Ottawa Board's middle immersion program. However, the program is still in the early stages and will need to be monitored as the number of students in it increases. As outlined above, a number of questions remain that are not answerable at this time; the examination of further cohorts will help in providing a larger data base and in determining whether results are consistent from year to year.

APPENDIX A

DESCRIPTION OF SUBTESTS OF "BIENVENUE AU CAMP DE LA GÉLINOTTE"

APPENDIX A

DESCRIPTION OF SUBTESTS OF "BIENVENUE AU CAMP DE LA GÉLINOTTE"

(Summarized also as Scoring Procedure Chart, page 30)

A. WRITTEN EXERCISES

1. Sentence writing exercise: "Où est la gélinotte?"

Task: Answers are to be written to five questions about a picture in the test booklet.

Score: Use of prepositions

Area evaluated: grammatical competence

Scoring: The score is the number of errors of preposition usage (not spelling, but including omission of the preposition, wrong choice of preposition and incomplete preposition).

2. Technical exercise: Les activités quotidiennes"

Task: Students are to write a composition about daily camp activities based on a given schedule of activities.

Score 1: Word formation and grammatical spelling

Area evaluated: grammatical competence

Scoring: In the first 50 words, the number of misspelled grammatical forms involving number, gender or verb endings are marked; the score is the number of these marked errors which would not sound correct if spoken.

Score 2: Appropriateness of style

Area evaluated: sociolinguistic competence

Scoring: A rating of 1 is given if the student had consistently maintained a formal style by avoiding the use of 'je', 'tu', 'vous' and related pronominal forms. Otherwise a rating of 0 is given.

3. Composition exercise: "Décris ton ami"

Task: The student is asked to write a composition about one of the imaginary friends he/she has made at "le camp de la gélinotte"

Score 1: Variety of vocabulary

Area evaluated: grammatical competence

Scoring: The score is the number of different and appropriately chosen verbs, whether conjugated or in the infinitive.

Score 2: Sophistication of vocabulary

Area evaluated: grammatical competence

Scoring: The verbs counted above are compared with a list of commonly used verbs; the score is the number of verbs not on this list.

Score 3: Basic task fulfilment
Area evaluated: discourse competence
Scoring: Five points of information were to be included in the composition; the score is the number of these points which have been put across coherently (not necessarily without grammatical errors).

Score 4: Tense sequence
Area evaluated: discourse competence
Scoring: A count is made of the cases where the student has made an incorrect choice of tense; this is expressed as a per cent of the total number of conjugated verbs.

4. Cloze-test exercise: "Le camping"
Task: Students are asked to supply the missing words in a text from which every seventh word has been deleted.
This type of test gives a measure of overall language proficiency, including grammatical, sociolinguistic and discourse competence.
Scoring: The score is the number of blanks filled correctly. (To be counted as correct, the word must be the exact response expected.)

B. ORAL EXERCISES
1. Individual story-retelling exercise: "Le concours de pêche"
Task: Students individually listen twice to a short taped story, then retell it with the aid of pictures in their test booklet.
Score 1: Pronunciation
Area evaluated: grammatical competence
Scoring: Students are rated on a four-point scale according to their ability to produce certain French sounds:
0 - poor (many distortions, strong accent)
1 - fair (some distortions, medium accent)
2 - good (almost no distortions; little accent, but not entirely native-like
3 - native-like (no distortions; unlikely to be achieved by even the most fluent immersion students)

Score 2: Tense sequence
Area evaluated: discourse competence
Scoring: A count is made of the number of incorrect tenses used in the first 10 conjugated verbs; the score is the number of errors out of 10.

2. Group story-telling exercise: "Autour du feu de camp"
Task: A group of four students take turns adding one sentence at a time to a campfire story begun by the tester.
Score: Communicative strategies
Area evaluated: strategic competence
Scoring: The taped stories are listened to in order to determine whether a student who encounters a language-related communica-

tion problem generally abandons the message or uses a communicative strategy. Scoring is on a three-point scale:

2 - encountered no language difficulties in communicating

1 - has run into problems but in the majority of cases has resolved them by using a communicative strategy

0 - has encountered problems and in the majority of cases has abandoned the attempt to put across the message

During the scoring of the individual story-retelling exercise, a count was kept of the number of times each student abandoned the attempt to put across a message and of the number of times each of the following strategies was used:

(1) taking an English word and making it comprehensible by giving it a French pronunciation

(2) creating a new, but understandable, word for a word they do not know by applying their knowledge of a related word in French

(3) giving a literal translation of individual words in an expression for which they do not know the French equivalent

(4) providing a less precise but still comprehensible equivalent for a French word or expression

(5) Finding a paraphrase or another way of putting across what they want to say.

From the individual story-retelling exercise a score for fluency was also derived, using the following scheme developed by OISE:

0 - very slow elocution, jerky rhythm, poor accentuation (of word or sentence), pauses and/or hesitations which are very frequent and exceptionally long (fluency causing embarrassment or irritation)

1 - very slow elocution, irregular rhythm, errors of accentuation, many omissions of liaison, many long and frequent pauses and/or hesitations

2 - elocution a little slow, regular rhythm, few errors of accentuation and liaison, few pauses and/or long hesitations

3 - normal elocution, regular rhythm, accentuation and liaison usually correct, normal pauses and/or hesitations, adequate intonation (fluency similar to a native).

SCORING PROCEDURE CHART FOR "BIENVENUE AU CAMP DE LA GÉLINOTTE"

		GRAMMATICAL COMPETENCE		SOCIOLINGUISTIC COMPETENCE	DISCOURSE COMPETENCE	STRATEGIC COMPETENCE
		Vocabulary items	Rules of grammar & pronunication			
W	Sentence writing		A: Use of prepositions (error count)			
R I	Technical exercise		B:Word formation and grammatical spelling ("oral" error count)	C: Appropriate-ness of style (2-point scale)		
T T E	Composition	D: Variety of vocabulary (verb count) E:Sophistication of vocabulary (verb count)			F: Basic task fulfilment (check list) G:Tense sequence (error count)	
N	H: Cloze test	Overall language proficiency (exact response scoring)				
O	Individual story retell		I: Pronunciation (5-point scale)		J:Tense sequence (error count)	
R A L	Group story telling					K: Communicative strategies (3-point scale)

APPENDIX B

COPIES OF QUESTIONNAIRES USED IN MIDDLE IMMERSION STUDY 1988

QUESTIONNAIRE FOR PARENTS OF CHILDREN IN GRADE 4 MIDDLE IMMERSION

Please answer the following questions about your child in the grade 4 middle immersion program. Check one box for each question unless otherwise indicated.

1a. Child's name _____

b. Sex: ☐ Boy ☐ Girl c. Date of birth _____

d. Place in family: ☐ Oldest ☐ Middle ☐ Youngest ☐ Only

e. Present school: ☐ Carleton Hts ☐ D.Roy Kennedy ☐ Featherston

f. School your child would attend if he/she were in the regular English program _____

2a. How would you describe your child's present attitude to school?

☐ Enthusiastic ☐ Somewhat positive
☐ Somewhat negative ☐ Very negative

b. How would you describe your child's overall academic progress in school this year?

☐ Excellent ☐ Satisfactory ☐ Fair ☐ Having difficulty

c. Has your child experienced any particular problem in the middle immersion program this year? ☐ Yes ☐ No ☐ Don't know

If yes, please describe. _____

_____

3. What opportunities, outside of school, has your child had to learn and use French? **(Check as many as apply.)**

☐ French-speaking relatives ☐ Living in a French neighbourhood
☐ Bilingual exchange program ☐ French camp or summer program
☐ Others (specify: _____)

4a. Was your child ever in early French immersion? ☐ Yes ☐ No

b. If yes, in what grade(s) ? _____

c. What was the reason for leaving? _____

_____

_____

5. How long do you expect your child to stay in an immersion program?

☐ As long as he/she is happy and successful

☐ Until the end of grade 6 ☐ Until the end of grade 8

☐ Until the end of high school ☐ Don't know

6. What was the <u>main reason</u> for choosing middle immersion as the way for your child to learn French? _____

_____

_____

_____

7. For each of the following statements, check one box to indicate whether or not it was a factor in choosing middle immersion for your child, rather than early or late immersion or core French.

	Important factor	Somewhat important	Not a factor
Starting immersion in grade 4 will give my child a better knowledge of French than than starting in grade 6.	☐	☐	☐
I wanted my child to have a good foundation in English before starting immersion.	☐	☐	☐
I did not want my child bussed out of the area for immersion during the primary grades.	☐	☐	☐
Adjustment to being taught in French is easier for my child in grade 4 than in grade 6.	☐	☐	☐
There is less risk that my child will miss important curriculum content if he/she begins French immersion in grade 4 rather than in grade 6.	☐	☐	☐

	Important factor	Somewhat important	Not a factor
Kindergarten-entry immersion was not available where my child started school.	☐	☐	☐
My child preferred to start immersion in grade 4 rather than in grade 6.	☐	☐	☐
I wanted to see how well my child could do in the English program before starting immersion.	☐	☐	☐
The middle immersion program is offered at a school which is conveniently located for us.	☐	☐	☐
I preferred another special program to immersion when my child was in the primary grades.	☐	☐	☐
Other children in our family were <u>not</u> successful in early immersion.	☐	☐	☐
My child was eager to learn more French than was offered in the core French program.	☐	☐	☐
Middle immersion is a second chance for my child who did not do well in early immersion.	☐	☐	☐
Other children in our family were successful in middle immersion.	☐	☐	☐
Our child was not happy in our local school.	☐	☐	☐
I heard of other children who had problems in early immersion.	☐	☐	☐
Most of my child's friends were going to the middle immersion class.	☐	☐	☐
My child needed a challenge such as the middle immersion program this year.	☐	☐	☐

Please answer the following questions about your household. Mark one box per question unless otherwise specified. Omit items about the second adult if there is only one adult in the household.

8a. How often are the following languages spoken in your home?

	Always	Usually	Occasionally	Never
English	☐	☐	☐	☐
French	☐	☐	☐	☐
Other: _____ (specify)	☐	☐	☐	☐

8b. How well are you able to use French?

Adult #1: ☐ Very well ☐ Adequately ☐ Poorly

Adult #2: ☐ Very well ☐ Adequately ☐ Poorly

9a. Number of adults in the household: ☐ 1 ☐ 2 ☐ 3 or more

b. Number of children in the household: ☐ 1 ☐ 2 ☐ 3 or more

c. Number of books in your home:

☐ 0-10 ☐ 11-30 ☐ 31-60 ☐ 61-100 ☐ More than 100

d. Were you able to be involved in any of the following aspects of your child's school this year? **(Check as many as apply.)**

☐ Attended parent-teacher interviews

☐ Served as classroom volunteer

☐ Was member of Parent Advisory committee

☐ Other: _____

Although the following questions are of a personal nature, they will provide us with useful information about the type of families whose children attend middle immersion. We hope you will choose to respond.

10a. What is the highest level of education you have reached?

	Adult #1	Adult #2
Elementary school only	☐	☐
Some high school	☐	☐
Graduated from high school	☐	☐
Some university or college	☐	☐
At least one university degree	☐	☐

b. What type of work do you do outside the home (if any)?

Adult #1: _____

Adult #2: _____

Thank you for your cooperation in completing this questionnaire.
Please return in the enclosed postage-paid envelope to:
Research Centre, Ottawa Board of Education,
330 Gilmour Street, Ottawa, K2P 0P9

BACKGROUND OF GRADE 4 MIDDLE IMMERSION STUDENTS
SPRING 1988

Please answer these questions as well as you can. If you can't remember write "Don't know".

NAME: _____

SCHOOL: _____ TEACHER: _____

1. What school did you go to in each grade? Circle "Yes" or "No" to show if you were in French immersion.

Grade	School	City	French Immersion
3	_____	_____	YES NO
2	_____	_____	YES NO
1	_____	_____	YES NO
Kgtn	_____	_____	YES NO

2. Did you ever go to a school for children whose native language is French? YES NO

   If so, in what grades? _____

3. Have you had any chances outside of school to learn French? Please describe them below.

   _____

   _____

   _____

   _____

APPENDIX C

TABLES 1-33

TABLE 1

SCHOOL BACKGROUND OF STUDENTS ENTERING
GRADE 4 MIDDLE IMMERSION IN THE FALL OF 1987

Background		No. of students
K to gr 3 in Ottawa or Carleton English program		68
Some education elsewhere* but no immersion:		
K to gr 3 in other city, province, board	3	
1 yr in OBE Eng after 3 yr elsewhere	4	
2 yr in OBE Eng after 2 yr elsewhere	1	
3 yr in OBE Eng after 1 yr elsewhere	5	
		13
Some OBE EFI:		
OBE Eng after all or part of K in EFI	5	
OBE EFI mid K to end gr 3	1	
		6
Some education elsewhere including EFI:		
K in EFI, gr 1-3 OBE Eng or elsewhere	4	
Gr 1-2 EFI, K and gr 3 Eng elsewhere	1	
OSSB half-day program gr 1-3, K elsewhere	1	
		6
TOTAL		93

* "Elsewhere" includes other parts of Ontario, other provinces, other countries and separate boards.

TABLE 2

OBE SYSTEM RESULTS ON GRADE 6 GATES-MACGINITIE READING TEST
BY PROGRAM, FALL 1987

Program	Vocabulary		Comprehension	
	Mean	N	Mean	N
Regular English	31.0	834	27.8	834
Early French immersion	36.2	379	33.0	379
Middle French immersion	35.0	39	31.3	38
Late French immersion	34.4	167	31.9	168

TABLE 3

GRADE 3 AND GRADE 6 GATES-MACGINITIE RESULTS FOR MFI, EFI AND ENGLISH GROUPS MATCHED ON GRADE 3 READING SCORES

Program	Vocabulary (N=25)		Comprehension (N=24)	
	Grade 3 1985	Grade 6 1987	Grade 3 1985	Grade 6 1987
Regular English	37.96	35.36	35.62	32.83
Early French immersion	37.80	37.36	35.38	34.46
Middle French immersion	37.76	34.94	34.88	31.40

TABLE 4

RESULTS ON STANDARDIZED TESTS FOR GRADE 6 EFI, MFI AND LFI GROUPS TESTED SPRING 1988

Test	EFI group			MFI group			LFI group		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Gr 3 Gates-MacGinitie:									
Vocabulary	36.8	6.6	40	37.0	6.2	35	37.5	5.4	33
Comprehension	36.1	5.7	40	33.9	5.4	35	35.3	5.4	33
Gr 4 CCAT:									
Verbal	71.3	12.5	42	70.3	11.4	33	74.0	9.9	28
Nonverbal	71.0	6.5	42	68.6	8.6	33	70.4	6.6	27
Gr 5 OBE Math	31.7	7.4	43	29.3*	5.3	37	33.1	7.2	39
Gr 6 Gates-MacGinitie:									
Vocabulary	35.8	5.0	48	34.9	6.7	38	35.1	5.9	50
Comprehension	33.1	6.2	48	31.2	6.8	37	33.1	6.4	50

* Difference between MFI and LFI means is greater than half the standard deviation of the combined group.

TABLE 5

RESULTS ON AUDITIVE A FRENCH LISTENING TEST
FOR GRADE 6 EFI, MFI AND LFI GROUPS TESTED SPRING 1988
AND COMPARISON GROUPS

Group				Mean	SD	N
Gr 6	EFI	Ottawa	Spring 1988	12.2*	2.8	46
	MFI			7.1	3.3	37
	LFI			6.8	2.8	49
Gr 6	MFI	Toronto	1983	7.7	2.3	24
			1985	6.2	2.2	27
Gr 6	EFI	Ottawa/Carleton	1979	11.1	3.2	152
Gr 7	EFI	Toronto	1985	12.5	2.5	42
	MFI		1985	12.0	2.7	19

* Mean of 1988 EFI group is greater than those of 1988 LFI and MFI groups

TABLE 6

RESULTS ON IEA II FRENCH LISTENING TEST FOR GRADE 6 LFI
GROUP TESTED SPRING 1988 AND COMPARISON GROUPS

Grade	Program	Board	Years	Mean	SD	N
Gr 6	1 yr LFI	Ottawa	1988	29.3*	4.4	49
Gr 6	1 yr LFI	Ottawa	1974-1976	26.4	5.3	319
Gr 7	1 yr LFI	Ottawa	1974-1975	24.7	6.4	170
Gr 7	1 yr LFI	Carleton	1974-1976	29.5	5.7	241

* Mean of 1988 LFI group is greater than those of other OBE 1 yr LFI groups

TABLE 7

RESULTS ON SUBTESTS OF "BIENVENUE AU CAMP DE LA GÉLINOTTE" FOR GRADE 6 EFI AND MFI GROUPS TESTED SPRING 1988

Subtest	Type of score	EFI group			MFI group		
		Mean	SD	N	Mean	SD	N
Grammatical competence							
Use of preps.	No. errors	2.0	1.4	46	2.5	1.6	39
Gram. spelling	No. errors	1.9	1.3	46	3.0*	2.2	39
Variety vocab.	No. verbs	10.0	3.7	46	12.3*	3.7	39
Sophistication	No. verbs	1.6	1.2	46	1.6	1.2	39
Pronunciation	Rating 0-3	1.2	0.5	47	1.2	0.5	39
Discourse competence							
Task fulfilment	No. tasks	4.0	1.0	46	4.0	0.9	39
Wr. tense seq.	% errors	10.4	16.4	46	22.7*	17.9	39
Oral tense seq.	No. errors	1.4	1.1	47	2.9*	2.0	39
Sociolinguistic competence							
Approp. style	Rating 0-1	0.6	0.5	46	0.6	0.5	39
Strategic competence							
Comm. strategies	Rating 0-2	1.0	0.0	46	1.0	0.0	39
Cloze test	Exact word	17.9*	4.1	46	13.8	4.9	39
Fluency	Rating 0-3	1.1	0.7	47	1.0	0.7	39

* Mean of this group is greater than that of other program group

TABLE 8

DISTRIBUTION OF RATINGS ASSOCIATED WITH "BIENVENUE AU CAMP DE LA GÉLINOTTE" FOR GRADE 6 EFI AND MFI GROUPS TESTED SPRING 1988

Rating	Pronunciation		Appropriateness of style		Communicative strategies		Fluency	
	EFI	MFI	EFI	MFI	EFI	MFI	EFI	MFI
0	0	1	18	15	0	0	10	8
1	39	28	28	24	46	39	23	22
2	6	10			0	0	14	9
3	2	0						

TABLE 9

FREQUENCY OF USE OF FIVE ORAL COMMUNICATIVE STRATEGIES
BY GRADE 6 EFI AND MFI GROUPS TESTED SPRING 1988

No. of times used	Number of students in group using strategy									
	Uses Eng. word		Makes up new word		Literal transl'n		Uses less precise wd.		Para-phrases	
	EFI	MFI	EFI	MFI	EFI	MFI	EFI	MFI	EFI	MFI
None	41	36	42	36	13	12	28	16	18	9
Once	5	3	4	2	18	16	10	13	21	15
Twice			0	1	11	6	5	7	7	10
3 times or more					4	5	3	3	0	5

TABLE 10

SASKATCHEWAN NORMS FOR "BIENVENUE AU CAMP DE LA GÉLINOTTE"

These norms are based on the June 1984 testing
of all available grade 6 French immersion students in Saskatchewan (12 classes).

GRAMMATICAL COMPETENCE

A: Use of prepositions
Below average - 2.53 or more errors
Average - 1.64 to 2.52 errors
Above average - 1.63 or fewer errors

B: Word formation & grammatical spelling
Below average - 2.05 or more errors
Average - 1.45 to 2.04 errors
Above average - 1.44 or fewer errors

D: Variety of vocabulary
Below average - 9.30 or fewer different verbs
Average - 9.31 to 11.16 different verbs
Above average - 11.17 or more different verbs

E: Sophistication of vocabulary
Below average - 0 to 0.80 sophisticated verbs
Average - 0.81 to 1.20 sophisticated verbs
Above average - 1.21 or more sophisticated verbs

I: Pronunciation
Below average - 1.45 or lower pronunciation rating
Average - 1.46 to 1.79 pronunciation rating
Above average - 1.80 or higher pronunciation rating

H: CLOZE TEST: GRAMMAT., SOCIOLINGUISTIC, DISCOURSE

Below average - 17.44 or fewer exact responses
Average - 17.45 to 20.56 exact responses
Above average - 20.57 or more exact responses

DISCOURSE COMPETENCE

F: Basic task fulfilment
Below average - 3.60 or fewer tasks fulfilled
Average - 3.61 to 4.00 tasks fulfilled
Above average - 4.01 or more tasks fulfilled

G: Tense sequence (written)
Below average - 19.60% or more tense sequence errors
Average - 12.30% - 19.59% tense sequence errors
Above average - 12.29% or fewer tense sequence errors

J: Tense sequence (oral)
Below average - 2.61 or more tense sequence errors
Average - 1.54 to 2.60 tense sequence errors
Above average - 1.53 or fewer tense sequence errors

SOCIOLINGUISTIC COMPETENCE

C: Appropriateness of style
Below average - 0.59 or lower
Average - 0.60 to 0.73
Above average - 0.74 or higher

STRATEGIC COMPETENCE

K: Communicative strategies
Below average - 1.03 or lower
Average - 1.04 to 1.31
Above average - 1.32 or higher

TABLE 11

MEAN SCORES ON SUBTESTS OF "BIENVENUE AU CAMP DE LA GÉLINOTTE" FOR COMPARISON GROUPS

Board, grade, program, year	No. of cl. *	GRAMMATICAL A: Use of prepositions No. of errors	GRAMMATICAL B: Grammatical spelling No. of errors	GRAMMATICAL D: Variety of vocabulary No. of verbs	GRAMMATICAL E: Sophistication of vocab. No. of verbs	GRAMMATICAL I: Pronunciation Rating 0,1,2,3	DISCOURSE F: Basic task fulfilment No. tasks max. 5	DISCOURSE G: Tense sequence (written) % of errors	DISCOURSE J: Tense sequence (oral) No. of errors	H: Cloze test (exact) No. words correct max. 42	SOC.-LIN. C: Appropriateness of style Rating 0 or 1	STRATEGIC K: Communicative strategy Rating 0, 1, 2	Fluency Rating 0,1,2,3
Toronto**													
Gr 6 MFI 1983	1	2.46	2.85	9.38	0.62	0.50	4.31	14.17	3.25	15.08	0.31	1.00	na
Gr 6 MFI 1985	1	2.50	2.75	10.25	1.38	1.25	3.87	26.84	4.88	14.38	0.38	1.00	na
Gr 6 EFI 1983	2	1.75	1.88	8.44	0.94	1.13	4.00	7.54	2.68	17.00	0.50	1.13	na
Gr 7 MFI 1985	3	2.33	2.50	9.25	0.75	2.00	4.00	16.41	3.17	17.67	0.58	0.92	0.67
Gr 7 EFI 1985		2.33	1.75	9.50	1.08	1.92	4.08	7.62	1.08	18.17	0.58	1.42	1.25
Quebec***													
Francophone 8	1	1.33	0.17	8.12	0.94	3.00	3.82	1.49	0.33	27.94	0.67	2.00	3.00
Saskatchewan													
Gr 6 FI 1984	12	2.08	2.00	10.25	1.00	1.63	3.80	16.00	2.06	19.00	0.66	1.17	na
Carleton**													
Gr 6 EFI 1985	6	2.19	1.52	11.46	1.08	1.80	4.42	12.83	2.23	16.71	0.21	1.26	1.57

* In general, 8 students per class were tested.

** In Toronto and Carleton, students from homes where French was the first language were not included in the sample.

***The group tested in Quebec consisted of one class of unilingual francophone students.

TABLE 12

RATINGS ON GÉLINOTTE SUBTESTS ACCORDING TO NORMS:
GRADE 6 MFI GROUPS IN OTTAWA AND TORONTO

Subtest	Toronto MFI		OBE
	1983	1985	MFI
Grammatical competence			
Preposition errors	average	average	average
Grammatical spelling errors	below	below	below
Variety of vocabulary	average	average	above
Sophistication of vocabulary	below	above	above
Pronunciation	below	below	below
Discourse competence			
Basic task fulfilment	above	above	average
Tense sequence errors (wr.)	average	below	below
Tense sequence errors (oral)	below	below	below
Sociolinguistic competence			
Appropriateness of style	below	below	average
Strategic competence			
Communicative strategies	below	below	below
Cloze test	below	below	below

TABLE 13

CORRELATIONS OF AUDITIVE A AND CLOZE TEST SCORES WITH STANDARDIZED TEST SCORES FOR GRADE 6 EFI GROUP TESTED IN SPRING 1988

Test		Correlation with Auditive A	Correlation with Cloze test
Gr 3 Gates-MacGinitie:	Vocabulary	0.36	0.27
	Comprehension	0.56**	0.26
Gr 4 CCAT:	Verbal	0.42*	0.47*
	Nonverbal	0.22	-0.03
Gr 5 OBE Mathematics		0.40*	0.23
Gr 6 Gates-MacGinitie:	Vocabulary	0.32	0.39*
	Comprehension	0.56**	0.16

* Correlations significant ($p < 0.01$)
** Correlations significant ($p < 0.001$)

Note: Correlation between Auditive A and cloze test was 0.17

TABLE 14

CORRELATIONS OF AUDITIVE A AND CLOZE TEST SCORES WITH STANDARDIZED TEST SCORES AND GRADE 4 FRENCH PROFICIENCY SCORES FOR GRADE 6 MFI GROUP TESTED SPRING 1988

Test	Correlation with Auditive A	Correlation with Cloze test
Gr 3 Gates-MacGinitie: Vocabulary	0.33	0.43*
Comprehension	0.41*	0.57**
Gr 4 CCAT: Verbal	0.52*	0.60**
Nonverbal	0.46*	0.46*
Gr 5 OBE Mathematics	0.19	0.33
Gr 6 Gates-MacGinitie: Vocabulary	0.52**	0.62**
Comprehension	0.56**	0.66**
Gr 4 OISE 1 Fr. Listening: fall	0.28	0.14
spring	0.52**	0.24
Fr. reading level 1 fall:		
Part 1	0.11	0.61**
Part 2	0.12	0.17
Part 3	0.26	0.33
Fr. reading level 3 spring:		
Part 1	0.26	0.40*
Part 2	0.54**	0.41*

* Correlations significant ($p < 0.01$)
** Correlations significant ($p < 0.001$)

Note: Correlation between Auditive A and cloze test was 0.55**

TABLE 15

CORRELATIONS OF AUDITIVE A AND IEA II SCORES WITH STANDARDIZED TEST SCORES FOR GRADE 6 LFI GROUP TESTED SPRING 1988

Test	Correlation with Auditive A	Correlation with IEA II
Gr 3 Gates-MacGinitie: Vocabulary	0.08	0.43*
Comprehension	0.11	0.38
Gr 4 CCAT: Verbal	0.23	0.50*
Nonverbal	-0.11	0.40
Gr 5 OBE Mathematics	0.06	0.13
Gr 6 Gates-MacGinitie: Vocabulary	0.30	0.42*
Comprehension	0.34*	0.49**

* Correlations significant ($p < 0.01$)
** Correlations significant ($p < 0.001$)

Note: Correlation between Auditive A and IEA II was 0.31

TABLE 16

RESULTS ON STANDARDIZED TESTS AND FRENCH PROFICIENCY TESTS BY SEX FOR GRADE 6 MFI GROUP TESTED SPRING 1988

Test	Boys			Girls		
	Mean	SD	N	Mean	SD	N
Gr 3 Gates-MacGinitie:						
Vocabulary	38.8	3.7	9	36.3	6.8	26
Comprehension	35.0	4.7	9	33.5	5.7	26
Gr 4 CCAT: Verbal	76.4*	10.1	9	68.0	11.2	24
Nonverbal	70.2	10.6	9	68.0	7.9	24
Gr 5 OBE Mathematics	30.8	5.5	11	28.6	5.2	26
Gr 6 Gates-MacGinitie:						
Vocabulary	36.8	5.0	11	34.1	7.2	26
Comprehension	34.4*	4.8	11	29.8	7.2	26
Gr 4 French Proficiency Tests:						
OISE 1 Fr. listening fall	22.3*	7.5	10	18.6	5.0	27
spr.	35.6*	6.4	10	29.3	5.5	27
Fr. reading level 1 fall:						
Part 1	22.7	1.9	10	23.0	1.5	28
Part 2	22.6	1.5	10	21.9	1.5	28
Part 3	17.5	3.5	10	16.8	2.6	28
Fr. reading level 3 spr.:						
Part 1	22.8	4.5	10	21.8	3.9	27
Part 2	16.3*	3.3	10	14.1	2.6	27
Gr 6 French Proficiency Tests:						
Auditive A Listening	7.6	4.8	10	6.9	2.6	27
'Bienvenue au camp de la gélinotte':						
Grammatical competence:						
No. preposition errors	3.3*	1.3	11	2.1	1.6	28
No. gram. sp. errors	2.6	1.6	11	3.2	2.4	28
Variety of vocabulary	11.0	4.9	11	12.8	3.0	28
Sophistication of vocab.	1.8	1.1	11	1.5	1.3	28
Pronunciation rating	1.4	0.5	11	1.2	0.5	28
Discourse competence:						
Basic task fulfilment	4.0	1.1	11	4.0	0.8	28
Wr. tense seq. errors	27.6	20.2	11	20.8	16.9	28
Oral tense seq. errors	3.1	2.2	11	2.9	2.0	28
Sociolinguistic competence:						
Appropriateness of style	0.7	0.5	11	0.6	0.5	28
Strategic competence:						
Comm. strategies rating	1.0	0.0	11	1.0	0.0	28
Cloze test	14.9	3.9	11	13.4	5.3	28
Fluency rating	0.8	0.6	11	1.1	0.7	28

* Mean for boys is greater than that for girls

TABLE 17

RESULTS ON STANDARDIZED TESTS AND FRENCH PROFICIENCY TESTS BY SEX FOR GRADE 6 LFI GROUP TESTED SPRING 1988

Test	Boys			Girls		
	Mean	SD	N	Mean	SD	N
Gr 3 Gates-MacGinitie:						
Vocabulary	37.1	7.0	15	37.8	3.9	18
Comprehension	34.3	6.7	15	36.2	4.1	18
Gr 4 CCAT: Verbal	71.8	14.7	11	75.4	5.1	17
Nonverbal	68.8	7.6	11	71.5	5.8	16
Gr 5 OBE Mathematics	33.5	8.1	16	32.8	6.7	23
Gr 6 Gates-MacGinitie:						
Vocabulary	35.1	6.7	20	35.0	5.4	30
Comprehension	31.4	7.5	20	34.2	5.3	30
Gr 6 French Proficiency Tests:						
Auditive A Listening	6.9	3.3	20	6.7	2.4	29
IEA II Listening	27.2	5.5	20	30.7*	2.7	29

* Mean for girls is greater than that for boys

TABLE 18

RESULTS ON STANDARDIZED TESTS AND FRENCH PROFICIENCY TESTS BY SEX FOR GRADE 6 EFI GROUP TESTED SPRING 1988

Test	Boys			Girls		
	Mean	SD	N	Mean	SD	N
Gr 3 Gates-MacGinitie:						
Vocabulary	37.0	6.6	20	36.6	6.8	20
Comprehension	36.8	5.0	20	35.4	6.4	20
Gr 4 CCAT: Verbal	70.6	11.0	21	72.0	14.2	21
Nonverbal	71.6	6.6	21	70.3	6.4	21
Gr 5 OBE Mathematics	32.3	7.6	22	31.1	7.4	21
Gr 6 Gates-MacGinitie:						
Vocabulary	35.9	5.0	25	35.7	5.0	23
Comprehension	32.8	5.9	25	33.3	6.7	23
Gr 6 French Proficiency Tests						
Auditive A Listening	12.3	3.0	24	12.0	2.5	22
'Bienvenue au camp de la gélinotte':						
Grammatical competence:						
No. preposition errors	1.7	1.3	23	2.3	1.6	23
No. gram. sp. errors	2.2	1.2	23	1.6	1.4	23
Variety of vocabulary	9.5	3.2	24	10.5	4.1	22
Sophistication of vocab.	1.9*	1.2	24	1.2	1.2	22
Pronunciation rating	1.2	0.5	24	1.2	0.5	23
Discourse competence:						
Basic task fulfilment	3.9	1.2	24	4.1	0.7	22
Wr. tense seq. errors	13.2	20.6	24	7.4	9.5	22
Oral tense seq. errors	1.3	1.1	24	1.6	1.2	23
Sociolinguistic competence:						
Appropriateness of style	0.6	0.5	23	0.6	0.5	23
Strategic competence:						
Comm. strategies rating	1.0	0.0	24	1.0	0.0	22
Cloze test	16.8*	4.1	24	19.1	3.9	22
Fluency rating	1.1	0.7	24	1.1	0.7	23

* Mean of boys is greater than that for girls

TABLE 19

OBE SYSTEM RESULTS ON GRADE 3 GATES-MACGINITIE READING TEST BY PROGRAM, 1985 AND 1987

Program	Vocabulary					
	1985			1987		
	Mean	SD	N	Mean	SD	N
Reg. English	33.9	7.8	1014	33.6	7.8	941
EFI	36.5	6.6	405	35.6	7.1	445
MFI	37.3	5.7	56	38.3	5.7	81
Transfers from MFI				34.6	6.2	12
	Comprehension					
	1985			1987		
	Mean	SD	N	Mean	SD	N
Reg. English	31.9	6.7	1008	31.7	7.2	937
EFI	34.9	6.6	398	33.2	7.2	448
MFI	34.6	5.2	56	36.1	5.5	81
Transfers from MFI				35.2	5.8	12

TABLE 20

OBE SYSTEM RESULTS ON GRADE 3 OBE MATHEMATICS TEST BY PROGRAM, SPRING 1987

Program	Mean	SD	N
Regular English	39.1	9.8	946
Early French Immersion	42.6	7.4	444
Middle French Immersion	45.6	5.7	82
Transfers from MFI	44.7	8.5	12

TABLE 21

RESULTS ON TOUROND FRENCH READING TEST
FOR GRADE 4 MFI GROUPS TESTED SPRING 1986 AND SPRING 1988

Group	Part 1: Sentence Comprehension			Part 2: Story Comprehension		
	Mean	SD	N	Mean	SD	N
First Cohort Gr 4 MFI Spring 1986	22.0	3.9	57	13.9	3.2	57
Third Cohort Gr 4 MFI Spring 1988	21.5	4.4	92	15.0	3.3	85
Grade 3 EFI Norming Group*	23.8	5.6	932	16.6	4.1	932

* taken from the test manual

TABLE 22

RESULTS ON OISE 1 FRENCH LISTENING COMPREHENSION TEST
FOR GRADE 4 MFI GROUPS TESTED SPRING 1986
AND SPRING 1988 AND COMPARISON GROUPS

Group	Mean	SD	N
First Cohort Gr 4 MFI Spring 1986	30.6	5.8	57
Third Cohort Gr 4 MFI Spring 1988	29.6	6.6	89
Grade 1 EFI*	28.5	na	611
Grade 3 EFI*	40.2	na	170
Grade 4 Bil.(1/2 Eng/1/2 Fr)*	36.1	na	13
Grade 4 Core French*	12.7	na	79

* taken from the test manual

TABLE 23

RESULTS ON STANDARDIZED TESTS AND FRENCH PROFICIENCY TESTS BY SEX FOR GRADE 4 MFI GROUP TESTED SPRING 1988

Test	Boys			Girls		
	Mean	SD	N	Mean	SD	N
Gr 3 Gates-MacGinitie:						
Vocabulary	38.2	5.5	37	38.4	5.8	44
Comprehension	35.8	4.9	37	36.3	6.1	44
Gr 3 OBE Mathematics	46.7	5.2	36	44.8	6.0	46
Gr 4 Fr. reading level 3:						
Part 1	21.7	4.1	38	21.4	4.5	53
Part 2	14.2	3.2	34	15.7	3.3	50
Gr 4 OISE 1 French Listening	28.8	7.4	39	30.4	5.8	49

TABLE 24

CORRELATIONS OF FRENCH PROFICIENCY TESTS WITH STANDARDIZED TEST SCORES FOR GRADE 4 MFI GROUP TESTED SPRING 1988

Standardized test	Correlation with French proficiency tests		
	OISE 1	Fr. reading Part 1	Fr. reading Part 2
Gr 3 Gates-MacGinitie:			
Vocabulary	0.00	0.30*	0.06
Comprehension	0.12	0.28*	0.14
Gr 3 OBE Mathematics	0.03	0.01	-0.08
Gr 4 OISE 1 Fr. Listening		0.53**	0.65**

* Correlations significant ($p < 0.01$)
** Correlations significant ($p < 0.001$)

TABLE 25

CHARACTERISTICS OF CHILDREN IN THE THIRD MFI COHORT: PARENT QUESTIONNAIRE, 1988

Characteristic	Category	Per cent in category
Sex:	Boys	42 per cent
	Girls	58 per cent
Year of birth:	1978	95 per cent
	1979	5 per cent
Place in family:	oldest	49 per cent
	middle	11 per cent
	youngest	32 per cent
	only	8 per cent

TABLE 26

CHARACTERISTICS OF MFI FAMILIES:
PARENT QUESTIONNAIRE, 1988

Characteristic	Category	% in category	
No. children in family:	one	9 per cent	
	two	59 per cent	
	three or more	32 per cent	
No. of adults in family:	one	9 per cent	
	two	86 per cent	
	more than two	5 per cent	
No. of books in home:	100 or fewer	8 per cent	
	More than 100	92 per cent	
Involvement in school:	parent-teacher interviews	95%	
	classroom volunteers	27%	
	other volunteer tasks	30%	
	Parent Advisory Committee	8%	
Parent education:		1st adult	2nd adult
	some high school	4%	7%
	high school graduate	11%	10%
	some univ. or college	32%	22%
	at least one degree	51%	60%
Type of employment:		1st adult	2nd adult
	professional	51%	53%
	management/retailing	16%	10%
	technician	9%	6%
	trades	8%	8%
	clerical	5%	6%
	other	11%	16%

TABLE 27

CHILDREN'S EXPOSURE TO FRENCH IN THEIR HOMES AND COMMUNITIES: PARENT QUESTIONNAIRE, 1988

Exposure to French			% in category
Language spoken in home:	English	always	86%
		usually	11%
		occasionally	2%
		never	0%
	French:	always	4%
		usually	3%
		occasionally	62%
		never	31%
	Other:	always	1%
		usually	4%
		occasionally	8%
		never	87%
Child's exposure to French outside of school:			
	French-speaking relatives		29%
	French-speaking friends and neighbours		13%
	French camp or summer program		10%
	French television		9%
	Community program		5%
	Living in French neighbourhood		1%

Parents' French proficiency:	1st adult	2nd adult
Poor	62%	65%
Adequate	19%	23%
Very good	18%	11%

TABLE 28

RESULTS OF STANDARDIZED TESTS AND FRENCH PROFICIENCY TESTS BY THE USE OF FRENCH IN THE HOME: GRADE 4 MFI GROUP TESTED SPRING 1988

Test	Always/usually			Occasionally			Never		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Gr 3 Gates-MacGinitie:									
Vocabulary	37.2	4.3	5	39.8*	5.4	39	37.2	4.9	20
Comprehension	32.2	5.0	5	36.7	5.1	39	37.1	4.1	20
Gr 3 OBE Math	45.4	6.7	5	46.1	5.5	41	45.7	5.4	20
Gr 4 Fr. reading level 3:									
Part 1	23.6	4.5	5	22.1	4.6	45	21.5	3.7	22
Part 2	13.0	2.0	5	15.1	3.2	41	16.1	3.0	22
Gr 4 OISE 1 List.	30.0	13.0	5	29.2	6.9	45	31.0	5.5	21

* Mean for this group is higher than that for homes where French is never spoken.

TABLE 29

IMPORTANCE OF FACTORS IN CHOOSING MIDDLE IMMERSION: PARENT QUESTIONNAIRE, 1988

Factor	Per cent of respondents		
	Important	Somewhat important	Not important
English foundation needed first	75	12	13
MFI means more French than LFI	49	19	32
Adjusting to French easier in gr. 4 than gr. 6	47	31	23
Check progress in English first	40	19	41
Child needed challenge of MFI	37	27	36
MFI school convenient	29	32	39
EFI not available for my child	26	6	67
Child wanted more French than offered in core	25	27	48
Child preferred another program to early immersion	24	7	69
Risk of curriculum loss greater in gr. 6 than gr. 4	23	23	55
Child preferred MFI to EFI	17	25	57
Primary grades too early for busing	16	9	75
Heard of other children with problems in EFI	12	23	65
Child's friends going to MFI	9	25	65
Child unhappy in local school	7	3	91
Siblings successful in MFI	5	-	95
Second chance for child unsuccessful in EFI	4	-	96
Siblings unsuccessful in EFI	3	-	97

TABLE 30

RESULTS ON STANDARDIZED TESTS AND FRENCH PROFICIENCY TESTS BY ATTITUDE TOWARDS SCHOOL: GRADE 4 MFI GROUP TESTED SPRING 1988

Test	Enthusiastic			Somewhat positive			Somewhat negative		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Gr 3 Gates-MacGinitie:									
Vocabulary	38.5	5.4	41	39.5	4.8	19	38.9	7.4	8
Comprehension	36.1	5.3	41	37.8	3.3	19	36.1	7.3	8
Gr 3 OBE Math	46.3	5.6	43	44.9	5.8	19	45.6	5.4	8
Gr 4 OISE 1 Fr.									
Listening	30.6	5.9	43	28.5	7.4	23	28.7	6.9	8
Gr 4 Fr. reading:									
Part 1	22.1	4.2	46	22.0	4.4	23	20.3	4.7	7
Part 2	15.0	2.7	43	15.7	3.7	22	14.5	2.8	6

TABLE 31

PARENTS' VIEWS OF THEIR CHILDREN'S PROGRESS: PARENT QUESTIONNAIRE, 1988

Progress rating	Per cent responding
Excellent	39 per cent
Satisfactory	47 per cent
Fair	9 per cent
Having difficulty	5 per cent

TABLE 32

RESULTS ON STANDARDIZED TESTS AND FRENCH PROFICIENCY TESTS BY THE INCIDENCE OF PROBLEMS ENCOUNTERED IN THE MFI PROGRAM: GRADE 4 MFI GROUP TESTED SPRING 1988

Test	No problem			Some problem		
	Mean	SD	N	Mean	SD	N
Gr 3 Gates-MacGinitie:						
Vocabulary	38.1	5.5	44	40.0	5.2	25
Comprehension	36.2	5.3	44	37.2	4.5	25
Gr 3 OBE Mathematics	46.8	5.3	45	44.3	5.8	26
Gr 4 OISE 1 Fr.						
Listening	30.9	6.6	46	28.3	6.2	29
Gr 4 Fr. reading:						
Part 1	22.3	4.4	48	21.1	4.1	29
Part 2	15.7	3.1	46	14.4	3.1	26

TABLE 33

RESULTS ON STANDARDIZED TESTS AND FRENCH PROFICIENCY TESTS FOR FIRST MFI COHORT: GROUP TRANSFERRING AND GROUP REMAINING TO SPRING 1988

Test	Remain in MFI			To another OBE program			Out of OBE system		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Gr 3 Gates-MacGinitie:									
Vocabulary	37.0	6.2	35	39.5	3.6	11	36.7	5.4	11
Comprehension	33.9	5.4	35	37.6*	4.2	11	34.3	4.9	11
Gr 5 OBE Math	29.3	5.3	37	32.9*	7.1	15	N too small		
Gr 4 OISE 1 Fr. List.:									
Fall	19.6	5.9	38	17.7	5.1	12	17.5	7.7	14
Spring	31.0	6.2	37	29.7	4.6	10	27.2	9.6	10
Gr 4 Fr. reading fall:									
Part 1	22.9	1.6	38	22.8	2.0	12	23.6	0.8	14
Part 2	22.1	1.5	38	20.1*	5.0	12	21.9	1.4	14
Part 3	16.9	2.8	38	17.2	1.9	10	17.6	2.9	14
Gr 4 Fr. reading spring:									
Part 1	22.1	4.0	37	21.3	3.7	9	21.9	3.5	10
Part 2	14.7	2.9	37	12.8*	3.6	9	11.7	2.1	10

* Mean for group transferring to another OBE program is different from that for group remaining in MFI

APPENDIX D

FIGURES 1-4

FIGURE 1

PROPORTION OF DAY IN FRENCH FOR ELEMENTARY STUDENTS
IN THREE OBE IMMERSION PROGRAMS

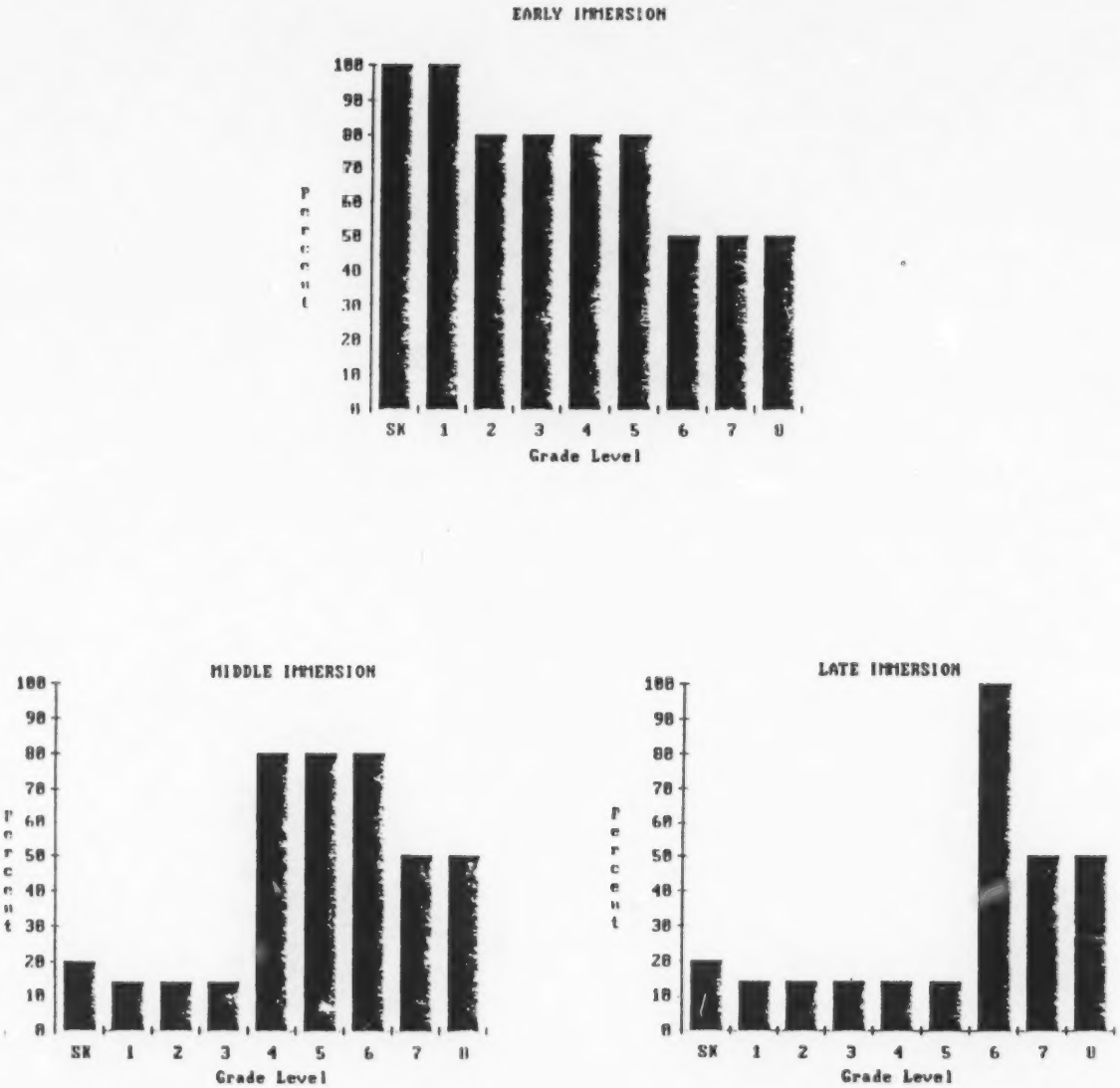


FIGURE 2

PATHWAYS OF 1985 COHORT OF OBE MIDDLE IMMERSION

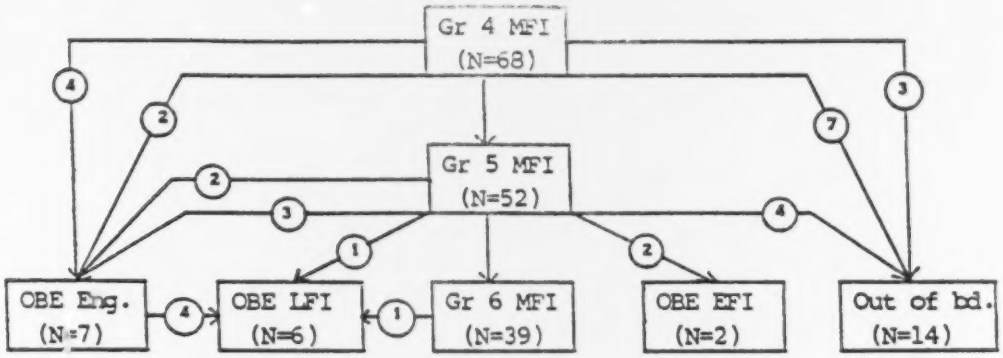


FIGURE 3

PATHWAYS OF 1987 COHORT OF OBE MIDDLE IMMERSION

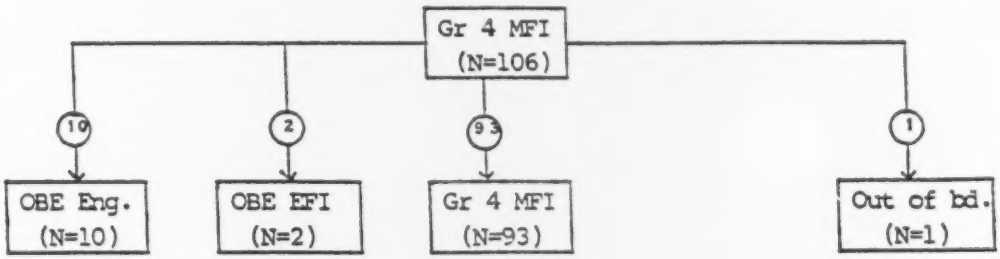
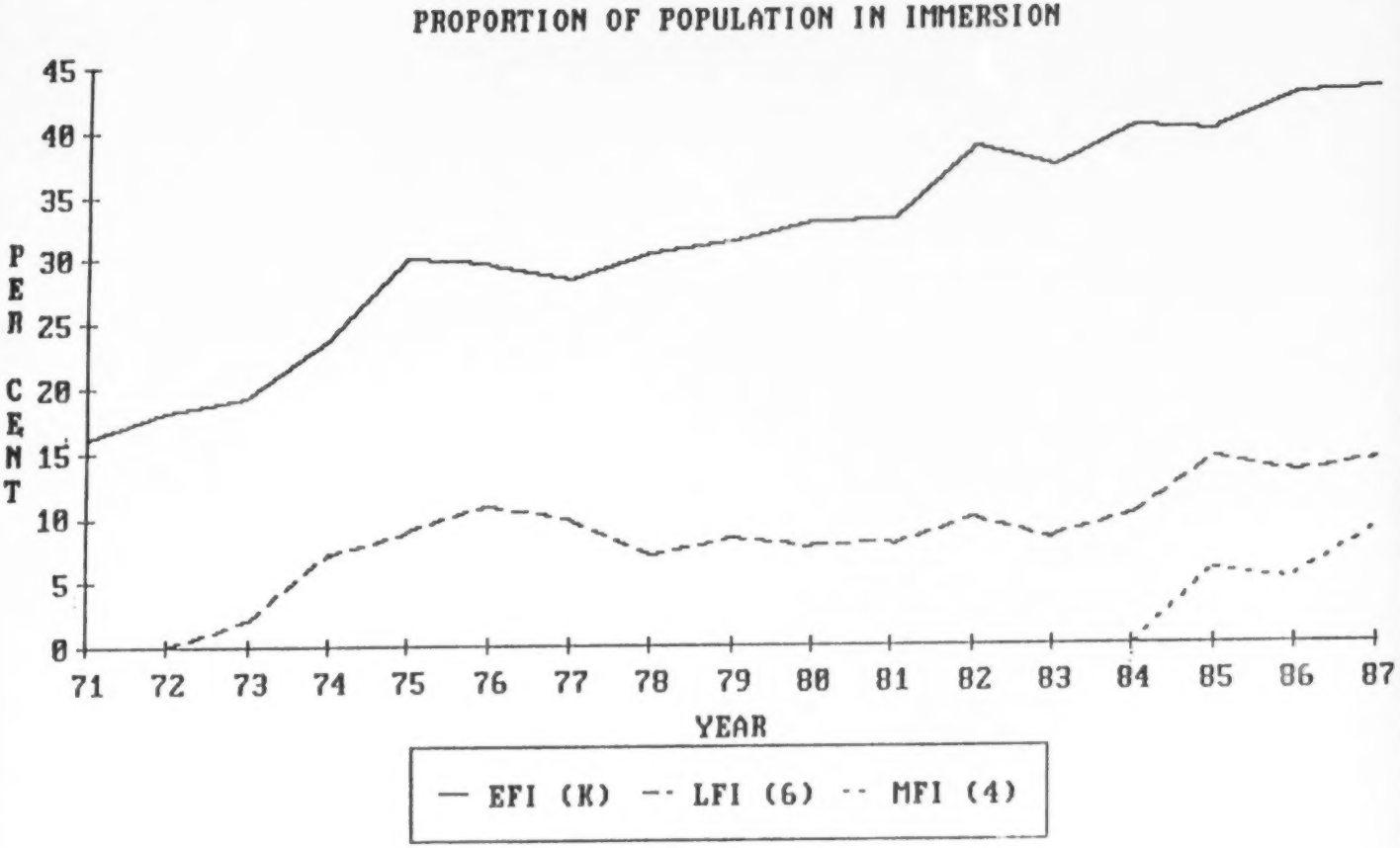


FIGURE 4


PROPORTION OF POPULATION IN IMMERSION
PERCENT
45
40
35
30
25
20
15
10
5
0
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
YEAR
— EFI (K) -- LFI (6) ·· MFI (4)

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